

HOPKINS MARINE STATION



PACIFIC GROVE, CALIFORNIA

October 5, 1950

Dr. Joshua Lederberg  
Department of Genetics  
University of Wisconsin  
Madison 6, Wisconsin

Dear Dr. Lederberg:

Sorry we did not get to see you before your return to Madison. We'll hope for some other occasion in the not too distant future.

Many thanks for your help, especially with regard to the possibility of doing a recombination experiment during the summer course. It worked more than satisfactorily; it was an extremely convincing demonstration of recombination as well as segregation of thiamin, maltose, and lactose-characters. I was deeply impressed.

But we did not use eosin-methylene blue agar plates for testing the ability of the isolates to use maltose, glucose, and lactose. In preliminary experiments, preparatory to the "class experiment," I was far from impressed with the E.M.B. plate-characteristics. So we used minerals + sugar, and minerals + thiamin + sugars, one sugar at a time, and simply tested for growth.

The tetrazolium-reduction yielded some very fine results, as well as some that were, at the time, quite puzzling, the last in connection with adaptation-patterns in Pseudomonas fluorescens for the oxidation of aromatic compounds. As I ~~now~~ realize, the mistake was to use, e.g., benzoate as a substrate, whilst I should have realized that benzoate oxidation requires molecular oxygen! This experiment, in the class, showed reduction of tetrazolium with benzoate-grown cells in the presence of mandelate and even phenylacetate before (and much more strongly than) reduction with benzoate showed!

Next year we'll do better!

Very best wishes and regards, *to both of you.*

Yours,  
*Kees van Niel*  
C. B. van Niel

VN:s